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USAID ROMANIA
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PROPOSED PRIVATIZATION STRATEGY POLICY FRAMEWORK FOR THE ROMANIAN POWER GENERATION SECTOR

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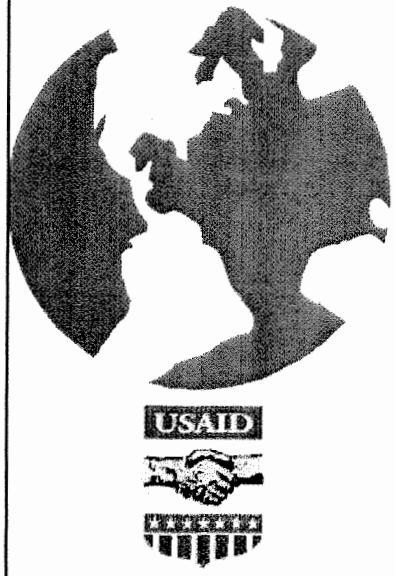
U.S. Agency for International Development
GENERATION PRIVATIZATION STRATEGY PROJECT



A Comparative Evaluation of Privatization Options and Their Suitability for Romania

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HUNTON & WILLIAMS

July 9, 2002

Key Goals for Privatization of the Generation Sector in Romania

- Introduction of new capital sources to modernize the power generation sector so that it will be both more efficient and environmentally compliant in the long run
- Development of a sector-wide solution rather than an asset-by-asset approach, so that Government financial transfers to the sector can be reduced over time
- The introduction of new competition into the market, which has been shown to lower electricity prices for industrial and consumer customers while increasing the availability of low-cost energy over time
- A desire to attain European accession which requires accelerated economic growth, market reforms, and environmental compliance for the generation sector as a whole

Key Goals for Privatization of the Generation Sector in Romania

- Mitigation of any social disruptions or unemployment that results from restructuring in the generation sector
- Encouragement of improved plant operating efficiency and maintenance practices
- Expansion of reliable and more secure supplies of electricity for the people of Romania

Survey of Privatization Options

In preparing our recommendations, Hunton & Williams conducted the following evaluation of comparative transactions:

- Evaluated over 265 energy sector privatization transactions in 41 countries since 1992
- Analyzed the situation in each country prior to privatization to determine its applicability to the Romanian context
- Assessed each privatization after the fact to determine whether goals and objectives of the government were actually achieved
- Reviewed the most commonly used methods with experienced investors, financing sources and consultants to determine whether they had applications for the Romanian energy market

Privatization Options Surveyed by USAID/Hunton & Williams

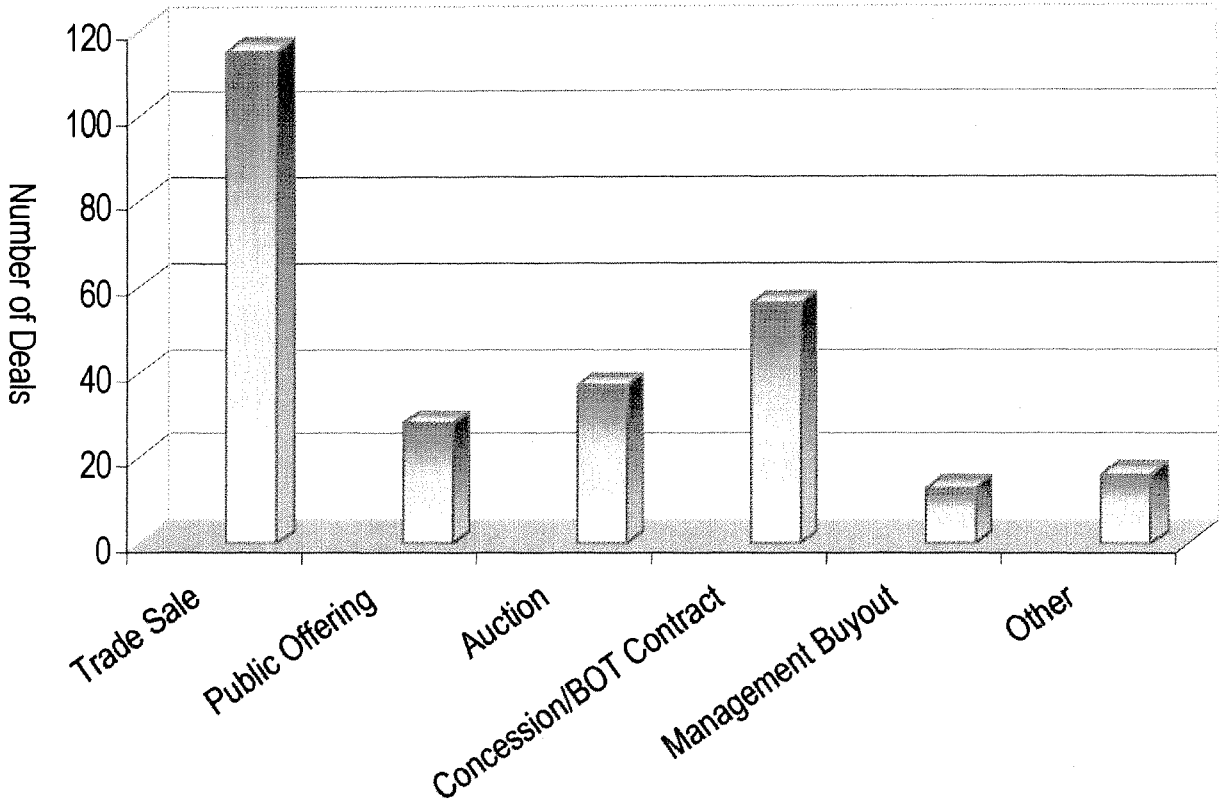
	Description of Privatization Methodology	Applicable Country Models Evaluated
	Concessions	Argentina, Brazil
	BOT Contracts	Turkey
	Capitalization + Public Offering	Czech Republic, Thailand
Trade Sale Grouping	Auctions	Argentina, Brazil, Bulgaria, Estonia
	De-Monopolization + Trade Sale	Hungary, Poland
	Trade Sale + Minimum Investment	Panama, Poland
	Trade Sale + Social Fund	Bolivia

Relevant Questions:

- Did each method achieve the desired results of the host government?
- Did a sufficient number of investors bid on the privatization opportunity?
- Did privatization result in lower tariff prices over time?

Commonly Used Privatization Methods

During the past ten years, Trade Sales have been the most widely used privatization structure among the transactions surveyed by Hunton & Williams:



Attainment of Selected Privatization Goals and Objectives by Privatization Method

The trade sale method, if structured appropriately, can best achieve the goals of the Government of Romania from privatization:

Privatization Method	Concessions	BOT Contracts	Auctions	Public Offering	Trade Sale Grouping
Introduction of new capital within the power industry		●		●	●
Development of a sector-wide solution		●			●
Introduction of new private competition		●	●	●	●
Lower electricity costs	●	●	●	●	●
Progress toward EU accession requirements			●	●	●
Mitigation of social disruptions				●	●
Plant operating efficiencies	●	●	●		●
Improved reliability	●	●	●	●	●

Problems With Other Methods

Why are BOT contracts or Concessions less attractive than Trade Sales, based on current conditions in the Romanian generation market?

- **Limited New Capital** – Concession contracts have failed to generate major new investment capital in many energy generation privatizations completed over the past few years.
- **Social Disruptions** – Strategic investors have often increased their financial returns through cost-cutting, such as layoffs, which has caused social unrest and problems for the local economy
- **Lack of Financial Guarantees –** New BOT contracts have been sharply reduced when a host government did not provide sovereign guarantees (not available to Romania). This example is mostly seen in Turkey, where many previously-announced BOT contracts have been put on hold
- **Not a Sector Solution** – Both BOT contracts and concessions have created only limited competition in emerging markets power sectors.

Trade Sale Strategies

Some recent trade sale examples can provide information on the probability of success, given the unique situation and factors in Romania:

- Recent Polish trade sales of individual Gencos one at a time
- Czech Republic attempted sale of CEZ

Poland -- Trade Sales + Investment

The Polish market for generation sector privatization includes the following elements:

- Largest generation capacity in Central & Eastern Europe (33,000 MW)
- Approximately 30% excess capacity over normal demand, but projected growth in usage of 50% over next fifteen years
- Very strong economic growth rates throughout the late 1990s
- High investor interest and good availability of external financing
- Privatization program began in 1995
- 37 generation plants owned by the national government
- Large need for new investment capital (approximately $15 billion) to modernize the sector

Poland Trade Sales - Government Priorities

The Government of Poland established the following priorities for Genco privatization:

- Raise new revenue for the State Treasury
- Generate new capital for investment in the sector
- Provide employment guarantees to workers and trade unions
- Lower electricity prices over the long term
- Provide fuel supply contracts for Polish coal mines

Poland Trade Sales

- During early privatizations, the Polish government sold majority control to external investors in order to generate high interest levels
- In recent privatizations, Poland has sold 35% of shares to the investor, with investment commitments to modernize facilities that would take the investor to 50% plus 1 share over several months or several years
- Poland has succeeded in raising over $500 million in future investment commitments through generation company privatizations

Genco	Investors	Shares Owned	Capacity	Polish Market Share
ZEL P.A.K.	Elektrim	35.0%	2323	6.9%
EL Polaniec	Tractabel	25.0%	1800	5.3%
EL Rybnik	EdF	50.0%	1745	5.2%
EC Warszawa	Vattenfall	55.0%	925	2.8%
EL Skawina	PSEG	35% to 50.1%	550	1.6%
EC Krakow	EdF	63.8%	446	1.3%
Kogeneracja Wroclaw	Public Tender	-	360	1.1%
ZEC Wybrzeze	EdF	45%	341	1.1%
EC Bialystok	Societe National d'Electriciti	45%	155	0.5%
EC Bedzin	MEAG + public tender	-	82	0.3%
Total			**8,727**	**26.1%**

Recent Poland Example

The most recent Polish Genco privatization offers a good example of how Poland's program has worked:

- EL Skawina, a 550 MW thermal generation facility, was sold to the American Investor, PSEG
- PSEG acquired 35% of current shares for $25 million, which went into the State Treasury
- PSEG will invest $56 million in Skawina by 2010 and increase ownership to 50.1% through share increase
- Workers were offered some level of employment guarantees and severance up to 18 months for job reductions

Lessons Learned from Poland Trade Sale Privatizations

- After 7 years, Poland has privatized 25% of its generation capacity.
- Poland's trade sale program for individual Gencos has had many delays and has proceeded very slowly
- Several recent transactions have been delayed or cancelled. Trade unions have become more demanding of work guarantees or severance packages, which has caused some investors to remove their bids
- Poland has structured recent transactions as an initial capital purchase of 35% of shares, with investors contributing new capital through investments (share increase) that raised their total ownership over time to majority control
- In order to speed up privatization, Poland is bundling together electricity distribution companies scheduled for trade sales over the next two years

Czech Republic -- Privatization of CEZ

The Czech Republic attempted to privatize its majority ownership position in CEZ, which provides 70% of the country's electricity, in one offering:

- Included in the trade sale package were 8 regional distribution companies and two nuclear power plants
- The CEZ privatization included very strict bidding instructions that investors were required to meet
- Investors would be barred from selling assets for 10 years after purchase
- Investors would be required to sign 15 year purchase contracts with domestic coal producers
- Investors were required to assume environmental liabilities of nuclear power plants included with the offering

Czech Republic -- Privatization of CEZ

Even a successful CEZ privatization would not have accomplished some of the most important goals in the Romanian situation:

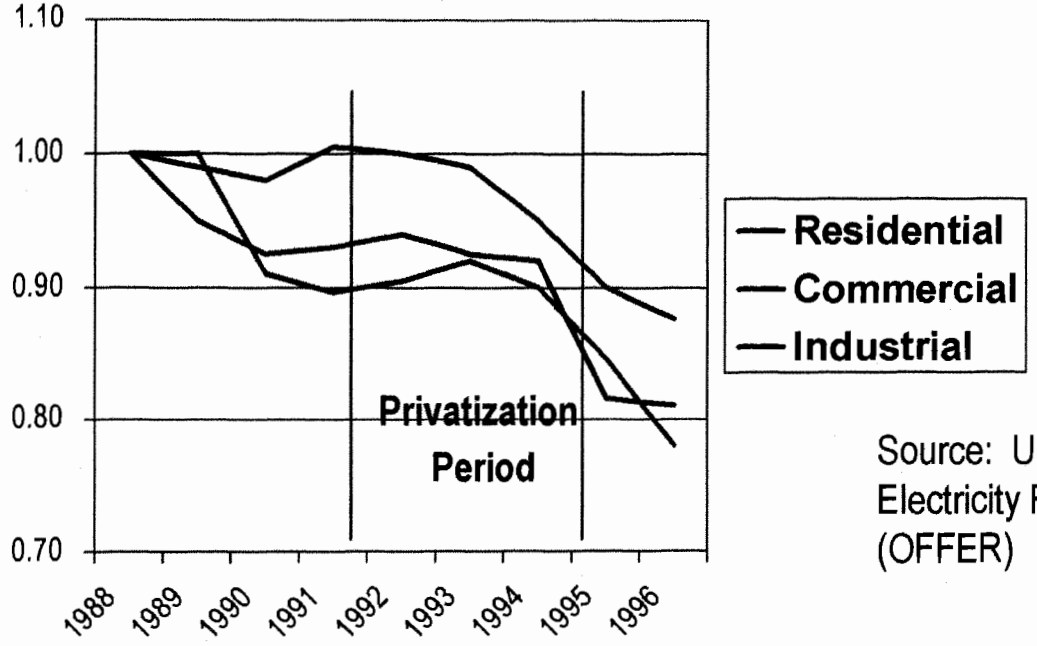
- **Limited Investment Capital -** Most of the purchase price was intended for the Czech national treasury and would not be invested in the electricity sector
- **Limited New Competition -** The CEZ privatization would not have increased competition on the domestic market and would be unlikely to lower energy prices for some time

Czech Republic -- Privatization of CEZ Lessons Learned

We can learn the following key points from the CEZ experience:

- Investors will be interested in large-scale privatizations and were interested in the CEZ trade sale, but reduced their offers or withdrew due to strict bidding requirements that created extra risks
- The CEZ offering was ultimately too complicated and included too many pieces to be successful:
  - RWE publicly withdrew from the process because of requirements to purchase nuclear generators
  - Both EdF and Enel/Iberola were concerned by fuel supply contracts and limits on future operations

Impact of Privatization and Reform on Tariff Rates – United Kingdom



Source: UK Office of Electricity Regulation (OFFER)

- Residential power consumers benefited from a 12% reduction in real electricity prices over an 8-year period
- Commercial consumers benefited from a 20% reduction in prices
- The major impact of privatization on pricing began in 1993, once the market was fully competitive

Impact of Privatization and Reform on Tariff Rates – Argentina

- Successfully increased generation capacity by 4,000 MW through privatization and concessions from 1992 to 1999
- The capacity increases brought new competition to the market and caused a decrease in Long-Run Marginal Cost (LRMC) levels from $41.85/mwh to $22.30/mwh
- From 1992 to 1998, real electricity prices to industrial customers decreased by 57%
- According to the Asian Development Bank, "the gains from privatization of utilities in Argentina exceeded 1.0 percent of GDP per year from 1995 through 1998 as a result of efficiency improvements, labor productivity gains and new capital invested"

Sources: Global privatization reviews prepared by Mexico Secretary of Energy and Asian Development Bank

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Suggested Next Steps and Timeline for the Government of Romania in Generation Sector Privatization

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Key Goals for Privatization of the Generation Sector in Romania

We recommend that the Government of Romania categorize generation sector privatization into three distinct phases:

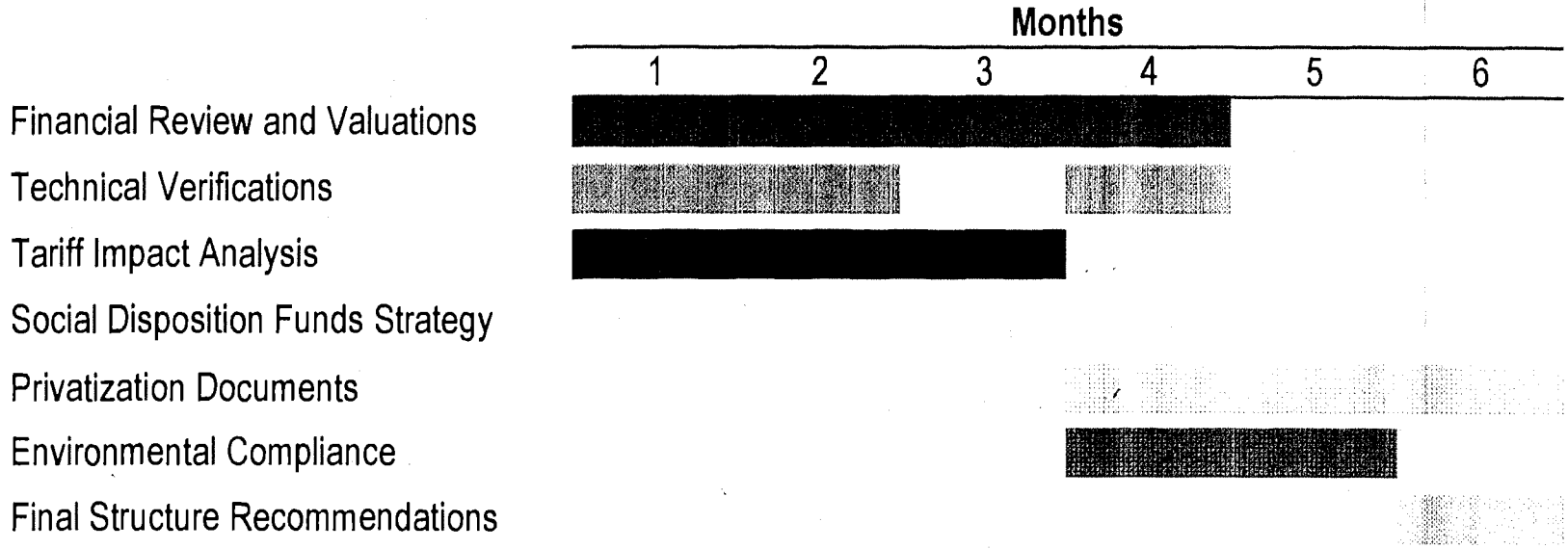
- **Phase I – Privatization Strategy Development** – the Government agrees on a strategy for the generation sector, and establishes the legal structure for future privatization transactions. This phase includes the recommendations prepared by USAID/Hunton & Williams.
- **Phase II – Privatization Preparation** – the Government begins the implementation phase of its program by preparing individual Gencos for eventual privatization. This Phase typically includes a more detailed analysis of Gencos to be privatized and preparation of supporting materials necessary for the eventual sale.
- **Phase III – Privatization Implementation** – this phase includes the actual sale process of offering Gencos for privatization, contacting investors, soliciting bids, and negotiating final transactions.

Key Goals for Privatization of the Generation Sector in Romania

- Based on an eventual decision by the Government of Romania regarding a structure for initial privatization transactions (bundled sales, individual Genco sales, other structures), Phase II can begin during the fall of 2002.

- We estimate that Phase II (Preparation) can be completed within six months and should include the following areas for further review:
  - Financial Review and Valuation of Individual Gencos
  - Technical Verification of Available Capacities, Heat Rates, etc.
  - Tariff Impact Analysis and Future Portfolio Contract Structure
  - Social Disposition Funds Preparation
  - Preparation of Transaction Documents
  - Emissions Trading and Environmental Compliance Evaluation
  - Final Recommendations on First Genco Bundles or Assets to be Sold

- Based on the desires of the Government of Romania, Phase II can begin during the fall of 2002.
- The following timeline details the completion of major tasks necessary for privatization preparation (Phase II) for the generation sector:



- Based on this proposed timing, Genco privatizations can be announced and begin in Spring 2003.

The key accomplishments for Phase II may include:

- Preliminary valuations of individual Genco bundles, which will help the Government to prioritize Gencos for initial privatization transactions
- Verification of technical capabilities and minimum capacity availability requirements for Gencos, which can be included in bid instructions to investors
- Development of a detailed tariff impact analysis to be approved by the Government, including potential structure of off-take agreements
- In conjunction with ANRE, design of an equitable means of allocating portfolio contracts from privatized and non-privatized electricity distribution companies to any newly privatized Gencos
- Final recommendations on the most efficient privatization structure for the first offering (share increase, share purchase, joint venture, etc.)

Additional accomplishments for Phase II will include:

- Detailed bid instructions that can be given to potential investors
- A structure for establishing social disposition funds under current Romanian law, and draft guidelines for the implementation of these funds
- A summary of program options available to the Government for reducing social disruptions
- Draft model transaction documents

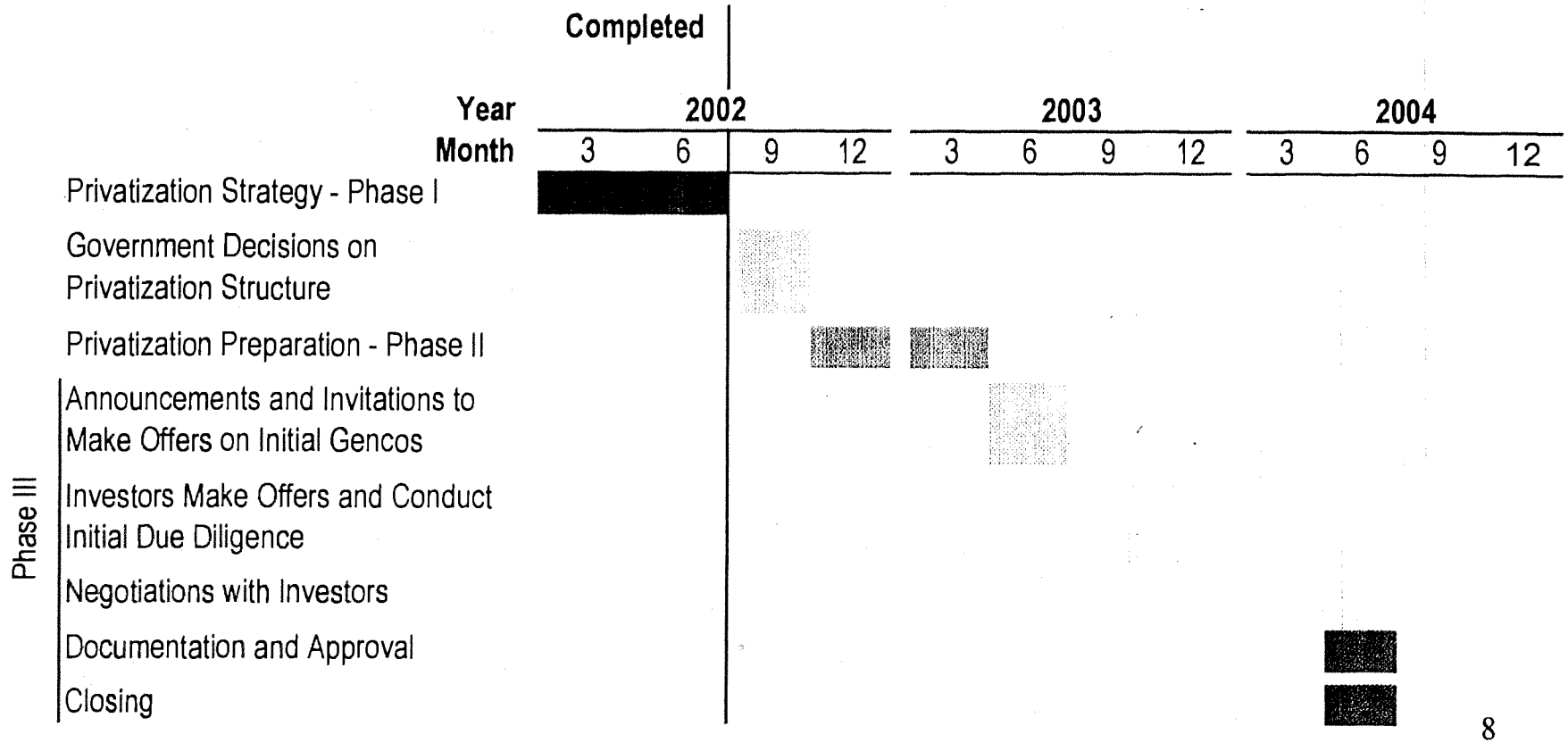
Survey of Privatization Options

We estimate that Phase III (Implementation) will require a longer time frame and typically includes the following key steps on each Genco to be privatized:

- Preparation of detailed offering materials that summarize Gencos to be privatized, relevant legal and regulatory conditions, summary financial performance and projected investment requirements
- Identify and contact qualified investors to participate in the initial privatization transaction
- Development and distribution of confidentiality agreements, bid instructions, draft purchase agreements and due diligence materials required by investors
- Collection and evaluation of investor bids
- Negotiation with investors, including site visits and technical reviews
- Final transaction structuring and closing of the privatization

Realities of the Energy Market That Can Impact Romanian Privatization

The following time schedule is typical for all Phases of energy generation privatizations and can provide a framework to the Government for completing the remaining steps in the process:



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Proposed Privatization Strategy Framework for the Romanian Generation Sector

CLEANER ENVIRONMENT

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ACCELERATED ACHIEVEMENT OF ENVIRONMENTAL GOALS AND EU STANDARDS THROUGH PRIVATIZATION

- The Government of Romania assumes the date of January 1, 2007 for accession to the European Union.

- All member EU countries must comply with the directive 2001/80/EC of the European Parliament dated October 23, 2001

- This EU Directive establishes the limitation of air emissions of certain pollutants from large combustion facilities.

- In addition all member EU countries must comply with EU Commission's Chapter 22 related to environmental protection.

CHAPTER 22 – MAJOR AREAS OF CONCERN

- Air Quality
- Waste Management
- Water Quality
- Industrial Pollution
- Noise Abatement
- Nuclear Safety

GOVERNMENT OF ROMANIA's REQUEST FOR IMPLEMENTATION TRANSITION TIME

- AIR QUALITY SPECIFIC TO COMBUSTION FACILITIES – 2012
- AIR QUALITY RESULTING FROM INDUSTRIAL FACILITIES- 2015
- LANDFILLING AND GROUNDWATER ISSUES – 2017

COMPLIANCE REQUIREMENTS FOR LARGE COMBUSTION FACILITIES

- Large combustion Facilities are defined as Facilities over 50 MW
- The Government of Romania is requesting a transition time for full EU environmental compliance with regards to Air Quality till January 2012
- Based on EU directives Ministry of Integration must present an implementation plan including a cost assessment and sources of financing for incorporating NO_X, SO_X, particulate emission control for all operational facilities by September 2002

Termoelectrica's Existing Facilities

- 18 Operational Thermal Plants
- 10 Plants Primarily OIL Fired – Major problem with SOx emission
- 7 Plants Primarily Coal Fired – Major problem with SOx and particulate emissions
- 1 Plant Primarily Gas Fired – Potential problem with NOx emissions
- Domestic Fuel Oil and Coal has high sulfur content

COMPLIANCE FOR NEW AND OLD COMBUSTION UNITS

- The Government of Romania's present position is that construction of any new combustion units or major refurbishment of any existing combustion facility requires immediate compliance with EU standards

➢ Existing units that do not undergo extensive refurbishment are subject to grand fathering and their environmental compliance is being negotiated with EU as follows:

➢ SOx Reduction - 40% decrease by 2004
- 50% decrease by 2007
- 70% decrease by 2012

NOx Reduction - 20% decrease by 2007
- 70% decrease by 2012

Particulates - unknown timeframe

ASH MANAGEMENT

- Coal fired plants are major contributors of ash
- EU standards require state-of-the-art ash management facilities
- Some concerns caused by ash are surface and groundwater contamination and fugitive dust emissions
- A National Waste Management Plan is to be completed by 2003.

ENVIRONMENTAL BENEFITS OF PRIVATIZATION

- It is very likely that private investors may construct or refurbish new units, will not be subject to grandfathering and will be required by Government environmental regulations to immediately comply with EU standards

- Much earlier compliance with EU standards and specifically with air emissions will greatly benefit the health and safety of Romanians

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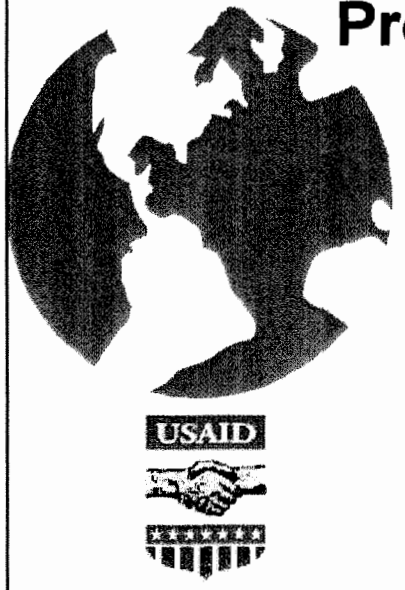

Proposed Privatization Strategy Framework for the Romanian Generation Sector

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Romanian Generating Capacity Potentially Subject to Privatization

- Romania currently has an overall installed electric generating capacity of 19,596 MW, of which 16,531 MW is available for dispatch.
- Estimated national demand in 2002 is 7,500 MW, with peak demand at 8,000 MW; in 2001 the number of actual GWH produced was 32,245
- A final capacity review requires a detailed heat rate and load factor analysis by unit and type of operation, and consideration of up-to-date demand projections, once data is made available
- Potential capacity subject to privatization excludes assets transferred to municipalities, NuclearElectrica assets, and the Iron Gates hydro facilities

Romanian Generating Capacity Available for Privatization

Plant Type	Current Available Capacity	Strategic or Transferred Asset	Potential Capacity Subject to Privatization
Large Thermal Plants	8,238 MW		8,238 MW
Smaller CHPs	1,688 MW	1,688 MW	-
Hydro Cascades	5,905 MW	1,335 MW	4,570 MW
NuclearElectrica	700 MW	700 MW	-
Total	**16,531 MW**	**3,723 MW**	**12,808 MW**

Several Major Factors Make Bundling a Compelling Strategy for Romania

- The division of generation into thermal and hydro entities hinders competition in the sector, and seriously harms the thermal generation owner, given its major capital requirements

- Bundling offers a sector-wide solution, whereas sales of individual facilities or generation companies allows investors to hand pick the most desired assets and leave more expensive generation companies as government owned

- A dependence on hydro facilities can make the hydro generation owner far less competitive during drought years

- Bundling offers the highest probability of stimulating increased competition, by potentially introducing several new competitors in the next few years

Several Major Factors Make Bundling a Compelling Strategy for Romania

- Multiple facilities allow the privatized bundle to immediately become a meaningful competitor on the market, which will increase investor interest in a difficult privatization market
- Bundled facilities provides diversity in fuel supply, geography and plant operations, reducing risks of droughts and fuel price increases
- Bundling can improve access to capital and future borrowing for the greatest number of existing facilities
- Bundling can speed up overall sector privatization, given Romania's early stage in generation privatization, the economic uncertainties throughout Europe, and the declining number of investor candidates that will slow down each attempted privatization transaction over the next two years

Suggested Structure of Investment

- Investment in joint venture generating companies ("Gencos") can be structured by a combination of direct purchase of shares and capital increase, as follows:
  - **Direct Purchase** -- Shares in the Gencos are sold directly to strategic investors, with money going to the seller (e.g., Termoelectrica and Hidroelectrica or the Government)
  - **Capital Increase** -- Termoelectrica and Hidroelectrica contribute assets to the new joint venture company and the investor is required to contribute cash proportionate to the desired shareholding by a capital increase.
  - We recommend that investors acquire the majority of their shares in each Genco through a **share increase**, which will keep needed funds for investment at the generation company level
  - We recommend that investors acquire enough shares through **direct purchase** to provide for worker stabilization funds to be administered outside the company

Specific Characteristics of the Proposed Hunton & Williams Privatization Strategy

- The initial privatization offering will consist of two 2,200-2,300 MW bundles of combined thermal and hydro capacity
- Each generation company will be debt free or, at a minimum, without burdensome debts
- The assets of each generation bundle will be owned by a Romanian joint venture company, with a majority of the shares held by the strategic investor and a minority of the shares held collectively by Termoelectrica and Hidroelectrica
- The strategic investors will have full management and operating control over all aspects of these enterprises

Specific Characteristics of the Proposed Hunton & Williams Privatization Strategy (Continued)

- The share split between Termoelectrica and Hidroelectrica will be proportional to the average electricity production in GWh over the previous 5-10 years from the respective generating units being contributed
- The Government will commit to retire aging and obsolete installed capacity over an agreed upon period of time
- ANRE will insure that an adequate number of annual portfolio contracts with Electrica and/or any newly privatized electric distribution companies are assigned to each joint venture company sufficient to cover principal and interest on loans, fixed O & M expenses, and an adequate return to investors
- These agreements will be phased out over several years with annual contract capacity reduced proportionally each year
- In other markets, privatization and increased competition have led to lower tariffs than would be true under state ownership over time for industrial and residential users

Specific Characteristics of the Proposed Hunton & Williams Privatization Strategy (Continued)

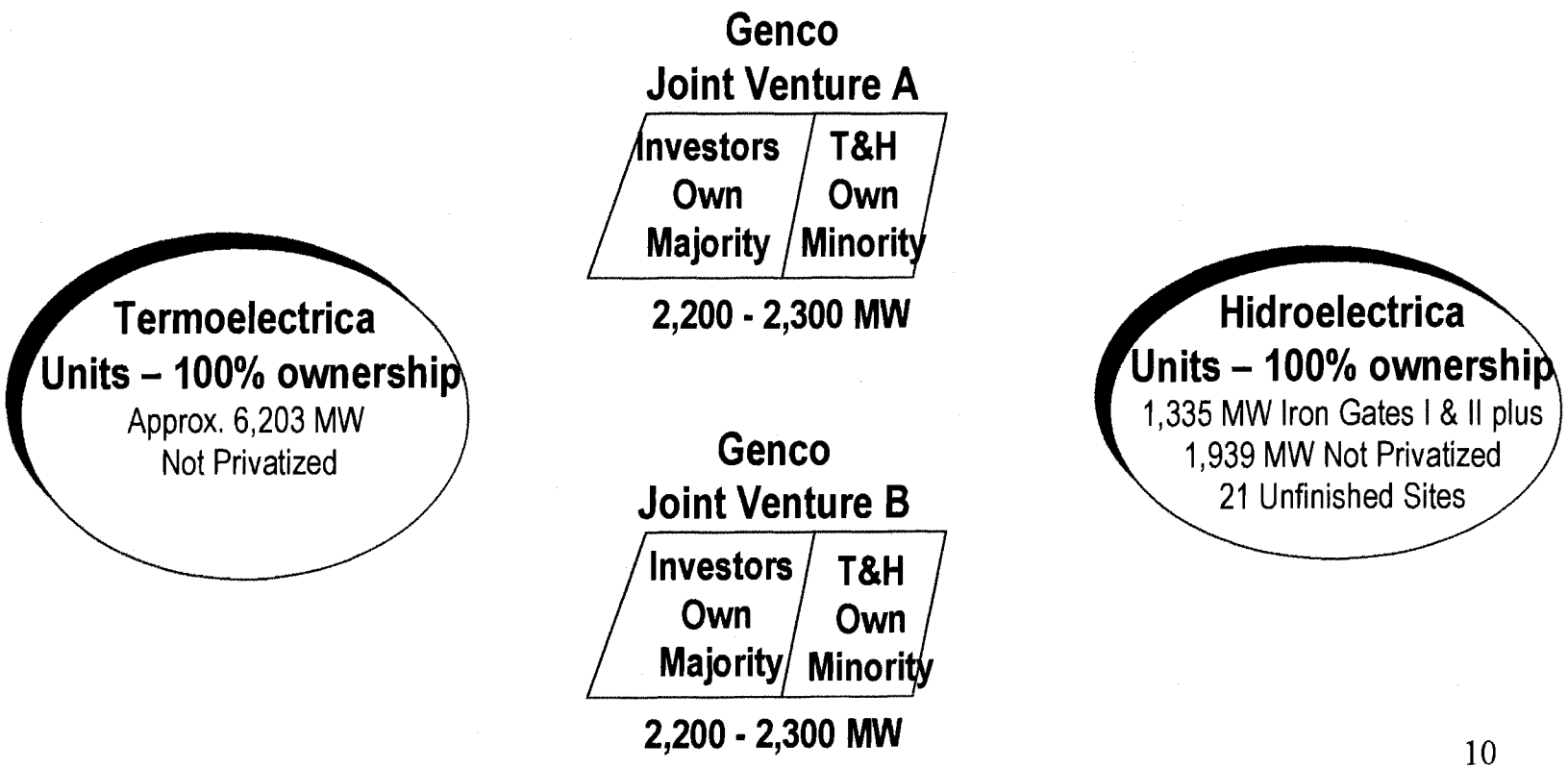
- Each new joint venture company must agree to maintain minimum available capacity over time as specified in the tender documents and determined by ANRE
- Strategic investors should not be required to upgrade or refurbish any specific plants or facilities in their generation asset bundle -- they must have the flexibility to meet these capability obligations in any manner they deem most cost effective
- Each new joint venture company also must agree to meet all legally required EU and Romanian emission standards, whether by the retrofitting of existing available capacity, retirement and subsequent construction of new capacity, fuel switching, the use of carbon emission credits, or some combination of the above, with appropriate penalties for failure to comply

Specific Characteristics of the Proposed Hunton & Williams Privatization Strategy (Continued)

- A USD50-75 million stabilization fund will be created out of funds received by the Government from the privatization sales to be applied to mitigate the potential social impacts or workforce dislocations that are likely to occur as a result of privatization
- The stabilization fund will support:
  - job placement
  - retraining programs for displaced workers
  - early retirement buy-outs for older employees
  - depending on seniority, up to 24 months of base salary for severance payments to assist workers and their families in transition to a new job or field of endeavor
  - the creation of new jobs

Illustration of Suggested Generation Sector structure (Phase I)

Proposed ownership assets in 2004



Suggested Romanian Generation Sector Ownership Structure by the Year 2004

- If the Government of Romania adopts and implements the proposed USAID/Hunton & Williams bundled privatization strategy, then the generation sector ownership structure by the year 2004 will be as follows:
  - **Termoelectrica** as direct owner of approximately 6,203 MW in total installed capacity that includes aging and obsolete capacity which will be in the process of being retired over time according to an agreed upon schedule
  - **Hidroelectrica** as direct owner of 1,335 MW in strategic assets (Iron Gates I&II) and approximately 1,939 MW in available hydro capacity assets that can be privatized in later bundles, for a total installed capacity of 3,274 MW
  - **Two privatized generation companies** owning approximately 2,200–2,300 MW each in capacity, structured as joint venture companies with Termoelectrica and Hidroelectrica together as minority shareholders, and strategic investors owning the majority of shares
  - **NuclearElectrica**, with 700 MW of installed capacity
  - **Smaller CHPs** owned by municipalities, with 1,688 MW of installed capacity

Suggested Romanian Generation Sector Structure by the Year 2004

- A summary of competitors in 2004 based on maximum available capacity following privatization of the initial two bundles would be as follows:

Generation Company	Available Capacity in 2004	Share of Total Market	Privatized Share of Market
Termoelectrica	6,203	37.5%	-
Hidroelectrica	3,274	19.8%	-
Genco A	2,326	14.1%	14.1%
Genco B	2,340	14.2%	14.2%
Smaller CHPs	1,688	10.2%	-
NuclearElectrica	700	4.2%	-
Total	**16,531**	**100.0%**	**28.3%**

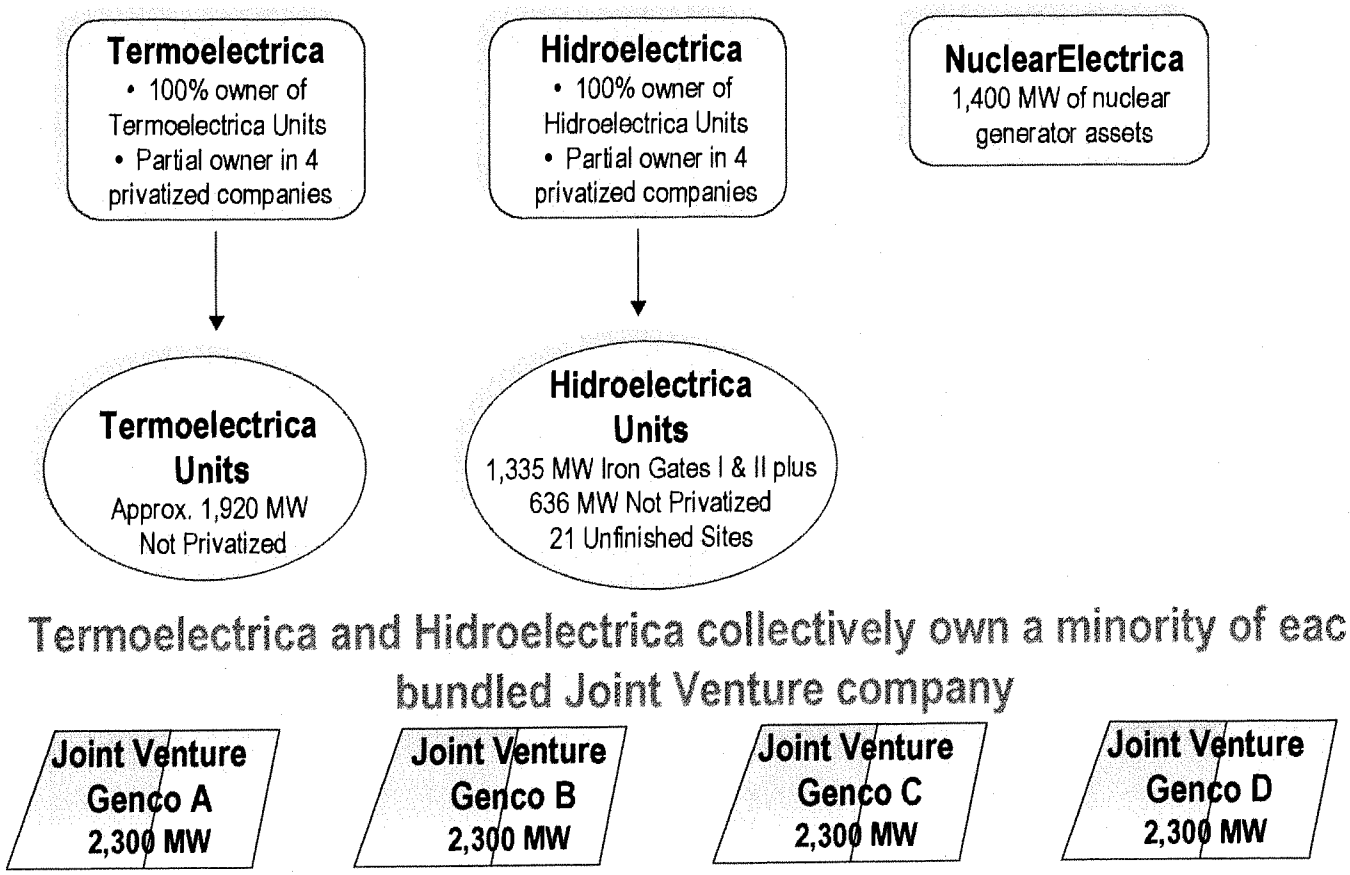
- Market share of the privatized bundles is within maximum ANRE guidelines of 15% - 19% market share and achieves government goal to privatize 25% - 40% of the generation sector

Generation Company	Available Capacity in 2004	Share of Total Market	Privatized Share of Market
Termoelectrica	2,903	17.6%	-
Hidroelectrica	1,971	11.9%	-
Genco C	2,319	14.0%	
Genco D	2,284	13.8%	
Total	**9,477**	**57.3%**	

Termoelectrica /Hidroelectrica Market Share

Illustration of Suggested Generation Sector Structure (Phase II)

Suggested Ownership Structure in 2007



Romanian Generation Sector Ownership Structure Within Five Years

- **Termoelectrica** will retain direct ownership of approximately 1,920 MW in currently installed capacity, plus share ownership in each of the four joint venture Gencos
- **Hidroelectrica** will retain direct ownership of 1,335 MW in strategic assets from Iron Gates I & II and 636 MW from the Bistrita Cascade that was not made available for privatization, plus share ownership in each of the four joint venture Gencos
- **Four privatized generation companies** of approximately 2,200–2,300 MW each in available capacity (plus possible capacity additions) structured as joint venture companies with Termoelectrica and Hidroelectrica collectively owning not more than 39.9 percent
- **NuclearElectrica** will directly own approximately 1,400 MW in installed nuclear capacity

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Assumptions Regarding Romania's Legal and Regulatory Framework Underlying Hunton & Williams' Privatization Strategy

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July 9, 2002

COMPANY LAW ASSUMPTIONS

- Romanian Company Law
  - Supports the assets of each generation bundle being owned by a Romanian joint venture company, with a majority of the shares held by the strategic investor and a minority of the shares held collectively by Termoelectrica and Hidroelectrica.
    - Majority shareholder interest will provide strategic investors with management and operating control.
  - Electrica's recent restructuring is not an attractive model to investors
    - Under new Government Decision, Electrica retains key management powers that should belong to the newly created subsidiaries
      - Decides how subsidiaries will buy electricity
      - Makes investment decisions
      - Responsible for selling and acquiring assets
      - Negotiates collective labor contracts applicable to each subsidiary

"GOLDEN SHARE" POWERS ASSUMPTIONS

- "Golden Share" Powers
  - The Government will waive or substantially curtail any and all "golden share" powers that it may be entitled to, presently or in the future, due to the joint ventures participating in a strategic sector of the economy and Termoelectrica's and Hidroelectrica's ownership of shares in the joint ventures.
    - Powers to be waived include Government vetoing the pledging or mortgaging of assets and decisions the Government considers adverse to consumer protections and national interests
    - Limited number of decisions regarding strategic issues (*e.g.* cessation of business) could require supra-majority, with the specific issues requiring such supra-majority to be identified in the organizational documents.

PRIVATIZATION LAW ASSUMPTIONS

- Privatization Law
  - Each bundle of generating assets will be offered free or substantially free of burdensome debts
    - Ministry of Industry and Resources, privatization agent or newly-created special administrator can accelerate transfer process by exercising powers to help settle debts owed to the State and other public sector creditors
    - Government will secure from private creditors their release of security interests in bundled assets being transferred to new generating company joint ventures

PROPERTY LAW ASSUMPTIONS

- Property Law
  - Bundled assets being transferred to new generating joint ventures will not have been previously transferred under a government directive to a municipality.
  - All thermal generating assets will be considered to be State private property
    - State private property is not subject to sale or other similar restrictions as is State public property
  - Termoelectrica and Hidroelectrica will possess adequate ownership title or concession rights to generating assets to transfer them to the new joint venture companies
  - Hidroelectrica's concessions to use State public property (*i.e.*, dams) will be transferred or new concessions can be granted to the new joint ventures, and the competitive bidding process preceding the granting of a new concession will be waived.

ENVIRONMENTAL LAW ASSUMPTIONS

- Environmental Law
  - Romanian Privatization Law will afford strategic investors an indemnity as protection against undisclosed environmental problems attributable to the assets.
  - Government will not attempt to curtail indemnity by requesting language contravening buyers' rights to an indemnity under the law

SOCIAL WELFARE LAW ASSUMPTIONS

- Social Welfare
  - Romanian law will support the creation of a dedicated $50-75 million fund set aside from the proceeds that will received by the Ministry of Public Finances from the privatization sales to be applied to mitigate the potential social impacts from privatization.
  - Obligations due to Government social welfare funds associated with workers transferred to the new generating companies will be current at the time of the creations of such companies or the privatization will generate proceeds required for such social funds in accordance with Romanian law.

REGULATORY ASSUMPTIONS

- Regulatory Assumptions
  - ANRE's independence and freedom from influence of sector participants
  - ANRE's powers will be respected by all sector participants
  - The tariff setting mechanisms prescribed under Romanian law will be adhered to
  - Regulated tariffs for the portfolio contracts will be set at levels offering investors a reasonable opportunity for a return on their investment
  - Licensing
    - Licences to operate assets will be transferred to new joint ventures or new licenses will be issued automatically.
  - ANRE will insure that an adequate number of annual portfolio contracts with Electrica and/or any newly privatized electric distribution companies are assigned to each joint venture company sufficient to cover principal and interest on loans, fixed O&M expenses, and an adequate return to investors so that these generation asset purchases can be financed on a project finance basis
  - The market will continue to be opened to competition and the newly-created privatized companies permitted to participate in it.

EU LEGAL ASSUMPTIONS

- EU Legal Assumptions
  - Each new joint venture company will agree to meet all legally required EU emission standards, whether by the retrofitting of existing available capacity, retirement and subsequent construction of new capacity, fuel switching, the use of carbon emission credits, or some combination of the above, with appropriate penalties for failure to comply

U.S. Agency for International Development
GENERATION PRIVATIZATION STRATEGY PROJECT

Development of Indicative Bundles of Generating Assets and Preliminary Financing Plans

Kendrick W. Wentzel

HUNTON
WILLIAMS

July 9, 2002

Hallmarks of a Sound Privatization Strategy from the Perspective of Potential Investors

- Hunton & Williams sounded out and worked closely with several potential strategic investors and key lenders to determine what would make an attractive privatization package from their perspective, especially in light of today's highly competitive market
- The results from this informal survey indicated that:

- ➢ The potential capacity offered must exceed 2,000 MW in available capacity to be considered credible and attractive
- ➢ Assets being offered must be free burdensome debt
- ➢ The strategic investor must have full operational control of the transferred assets with majority ownership of the new company's shares
- ➢ In this regard, Government should not be permitted to retain a "golden share"
- ➢ The generation assets being offered must be comprised of both thermal and hydro assets so as to insure a cost competitive asset bundle from the outset

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Hallmarks of a Sound Privatization Strategy from the Perspective of Government

- Similarly, from the Government's perspective, a sound privatization strategy must meet certain minimum objectives and social obligations, including that:

- Some provision must be made for the mitigation of temporary social disruptions brought on by work force reductions and forced early retirements resulting from the more efficient operation of these facilities by the private sector over time
- It must foster greater energy supply security for the country as a whole
- It must also result in making the remaining public sector entities more financially viable than they were before the proposed privatization initiative
- Finally, it must result in a truly competitive electricity sector so that longer-term tariffs to residential, commercial, and industrial customers will be lower than they might otherwise have occurred without privatization and increased competition in the marketplace

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The Case for Re-Bundling Thermal and Hydro Units

- The asset ownership side of the Romanian electricity sector has undergone profound changes over the past several years, not all for the better.
- For instance, in the year 2000 when CONEL was abolished and restructured, the decision to further split generation into thermal and hydro entities was a death warrant for Termoelectrica from the outset
- In this regard, Termoelectrica simply could not compete against Hidroelectrica, and as a result is currently losing over $1 million per day at a time when significant capital infusions are required for plant modernization and environmental retrofit programs
- If Romania expects to be able to stimulate increased competition in the electricity sector, while at the same time leverage private capital to undertake necessary plant modernizations and environmental retrofits through the privatization process, then it must be willing to revisit this earlier unbundling decision because only blended asset bundles stand a chance of being competitive over the longer run against Hidroelectrica and Nuclearelectrica

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Illustration of Suggested Market Structure Organization in 2004

SUGGESTED MARKET STRUCTURE IN 2004

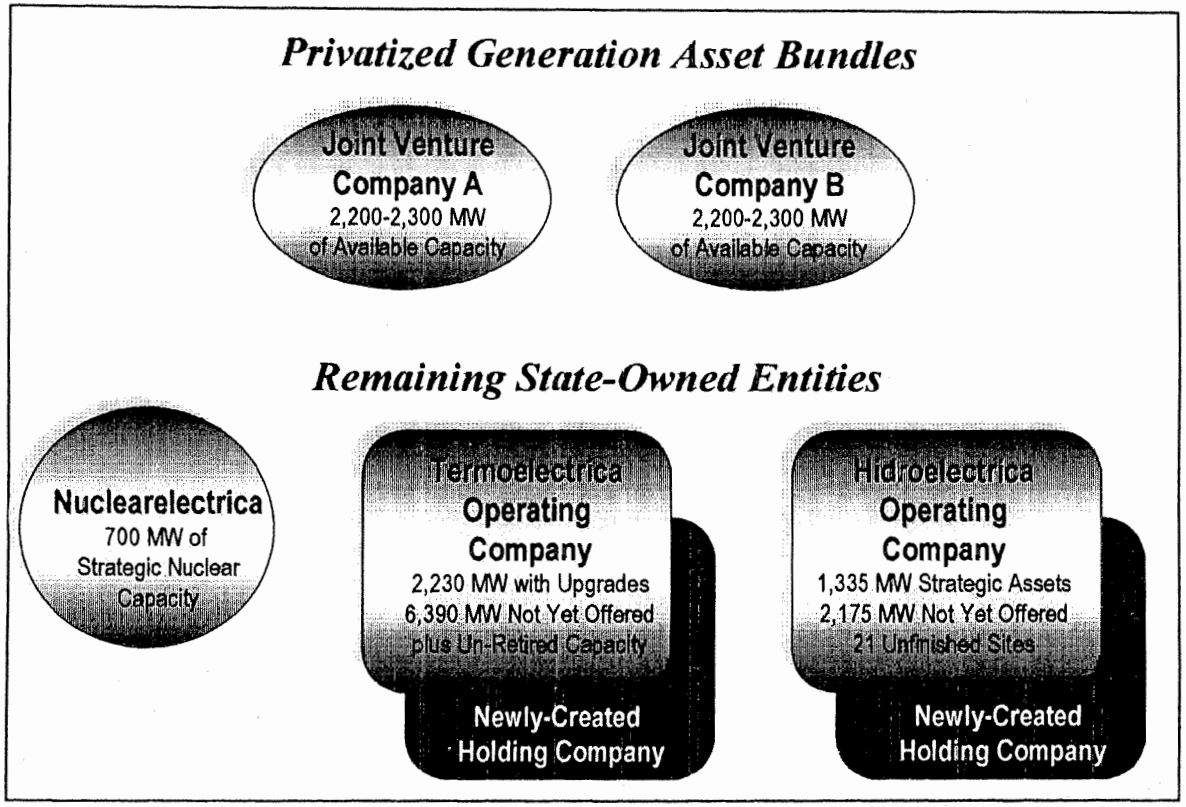

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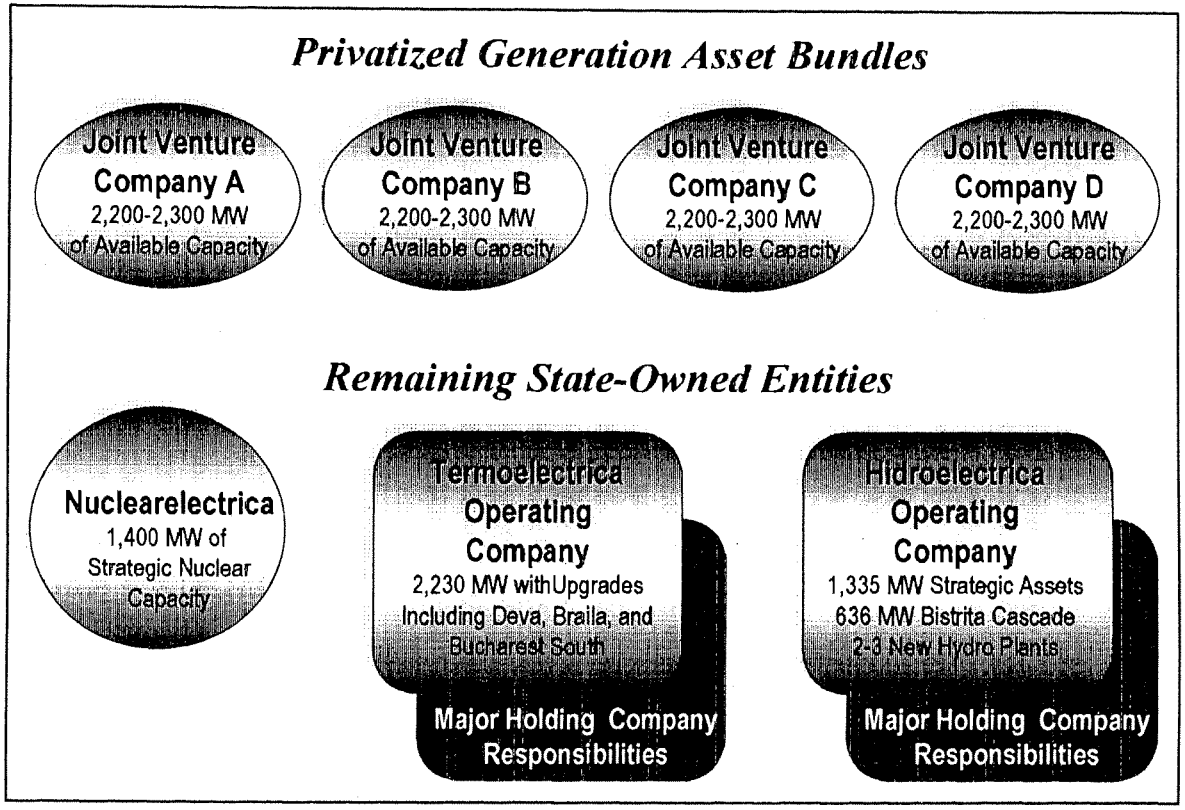
Illustration of Suggested Market Structure Organization in 2007

SUGGESTED MARKET STRUCTURE IN 2007



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Romanian Generating Capacity Potentially Subject to Privatization

- Romania currently has an overall installed electric generating capacity of 19,596 MW, of which 16,531 MW is available for dispatch.
- Estimated national demand in 2002 is 7,500 MW, with peak demand at 8,000 MW; in 2001 the number of actual GWh produced was 32,245
- A final capacity review requires a detailed heat rate and load factor analysis by unit and type of operation, and consideration of up-to-date demand projections, once data is made available
- Potential capacity subject to privatization excludes assets transferred to municipalities, NuclearElectrica assets, and the Iron Gates hydro facilities

Romanian Generating Capacity Available for Privatization

Plant Type	Current Available Capacity	Strategic or Transferred Asset	Potential Capacity Subject to Privatization
Large Thermal Plants	8,238 MW		8,238 MW
Smaller CHPs	1,688 MW	1,688 MW	-
Hydro Cascades	5,905 MW	1,335 MW	4,570 MW
NuclearElectrica	700 MW	700 MW	-
Total	**16,531 MW**	**3,723 MW**	**12,808 MW**

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Inventory of Available Termoelectric Plants on an Asset Transfer Basis

Summary of Current Termoelectric Generation Facilities

Plant #	Plant Name	Fuel	Installed Capacity	Available Capacity		Electricity Production Delivered in 2001	
			MW	MW	%	GWh	%
1	Borzesti Cd TPP	Gas	420	420	5.10	469.836	1.87
2	Braila TPP	Oil & Gas	960	420	5.10	1,046.033	4.16
3	Brazi CHP	Oil & Gas	710	310	3.76	519.119	2.07
4	Bucuresti Sud CHP	Oil & Gas	550	450	5.46	1,043.000	4.15
5	Bucuresti Vest CHP	Oil & Gas	250	250	3.03	794.619	3.16
6	Grozavesti CHP	Oil & Gas	100	100	1.21	291.812	1.16
7	Bucuresti "Progresul" CHP	Oil & Gas	200	200	2.43	506.351	2.02
8	Bucuresti "Titan" CHP	Oil & Gas	8	8	0.10	14.070	0.06
9	Constanta – Palas CHP	Oil & Gas	250	100	1.21	353.696	1.41
10	Craiova CHP	Coal & Oil	300	300	3.64	1,028.144	4.09
11	Mintia TPP	Coal & Gas	1,260	1,050	12.75	4,068.274	16.19
12	Doicesti TPP	Coal & Oil	400	400	4.86	536.218	2.13
13	Galati CHP	Oil & Gas	535	375	4.55	1,048.214	4.17
14	Isalnita TPP	Coal & Oil	630	315	3.82	1,377.954	5.48
15	Iernut TPP	Gas	800	800	9.71	2493.624	9.92
16	Paroseni CHP	Coal & Gas	300	100	1.21	175.676	0.70
17	Rovinari TPP	Coal & Oil	1,320	1,320	16.02	4,614.366	18.37
18	Turceni TPP	Coal & Oil	2,310	1,320	16.02	4,744.051	18.88
	Total		**11,303**	**8,238**	**100**	**25,125.057**	**100**

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Inventory of Available Hidroelectrica Cascades on a Concession Basis

Summary of Available Hidroelectrica Generation Facilities

Nr	Branch Name	No. of HPP & PS	General Area of Operation	Installed Capacity		Annual Energy			
						2000		2001	
				MW	%	GWh/y	%	GWh/y	%
1	Ramnicu Valcea	34	Lotru, Olt	1,625	35.56	3,795	39.91	2,768	38.88
2	Bistrita	21	Bistrita, Siret, Prut	636	13.92	1,656	17.42	1,413	19.85
3	Cluj	17	Somesul Cald, Cris, Dragan, Iad	539	11.79	997	10.48	1,048	14.72
4	Curtea de Arges	26	Arges, Dambovita, Raul Targului	521	11.40	956	10.05	585	8.22
5	Hateg	12	Raul Mare	485	10.61	683	7.18	480	6.74
6	Sebes	4	Sebes	346	7.57	606	6.37	280	3.93
7	Targu Jiu	6	Cerna, Motru, Tismana, Jiu	193	4.22	449	4.72	238	3.34
8	Caransebes	3	Bistra Marului, Cerna	148	3.24	164	1.72	178	2.50
9	Buzau	4	Buzau	77	1.68	203	2.13	130	1.83
	Total	**127**		**4,570**	**100**	**9,509**	**100**	**7,120**	**100**

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Introduction to Four Diversified Generation Asset Bundles

- In an attempt to attract the greatest number of potential qualified investors, H & W recommends that these four bundles be differentiated as follows:

1) One mixed bundle should be anchored with a major coal-fired facility in good operating condition
2) Another mixed package should be formed around a major hydro-electric cascade complex
3) A third mixed bundle should consist primarily of oil and gas fired units for a majority of its available capacity
4) And a fourth should be comprised of a mix of various thermal fuel sources along with a remainder of hydro units designated for privatization

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Selection Criteria Used in Developing Indicative Bundles

- In developing these indicative generation asset bundles, H & W was guided by the following principles and general guidelines in assigning existing assets to each of these bundles:

- Each bundle would contain between 2,200 and 2,300 MW of available capacity
- Each Bundle should strive to have between 5,000 and 6,000 GWh of electricity production capability per annum
- Each bundle will also have considerably more thermal capacity than hydro, except for the bundle anchored by a major hydro cascade
- It would be desirable if each bundle also contained at least one major CHP plant in its overall mix of units
- Assets should be made available to a given asset bundle either debt free or essentially free of all burdensome debts

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Selection Criteria Used in Developing Indicative Bundles (Continued)

- As a result, Deva, Bucharesti South, and Braila will remain with Termoelectrica for the foreseeable future until such time as their international debts are either repaid or assumed by a foreign strategic investor
- The Bistrita Cascade will not be made available for privatization due to potential liabilities associated with the first dam in the cascade
- In any event, both the Cernavoda Nuclear Generating Station and Iron Gates I & II on the Danube will remain under State patrimony
- Optimally, units made available for privatization should not be older than 30 years of age unless they have recently been modernized
- And finally, it would be helpful if each bundle contains geographically diverse units

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Joint Venture Asset Bundle 1 with Emphasis on Major Coal or Lignite-Fired Capacity

Unit Composition of Bundle I by Type, Capacity, and 2001 Production Level

No.	Type of Plant	Plant or Cascade Name	Installed Capacity		Available Capacity		Electricity Production in 2001	
			MW	%	MW	%	GWh	%
1	TPP	Turceni	2,310	69.66	1,320	56.75	4,744.051	81.67
		Total TPP&CHP	**2,310**	**69.66**	**1,320**	**56.75**	**4,744.051**	**81.67**
2	HPP	Curtea de Agres	521	15.71	521	22.40	585.000	10.07
3	HPP	Hateg	485	14.63	485	20.85	480.000	8.26
		Total HPP	**1,006**	**30.34**	**1,006**	**43.25**	**1,065.000**	**18.33**
		Total for Bundle I	**3,316**	**100.00**	**2,326**	**100.00**	**5,809.051**	**100.00**

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Location Map for Bundle 1 Units

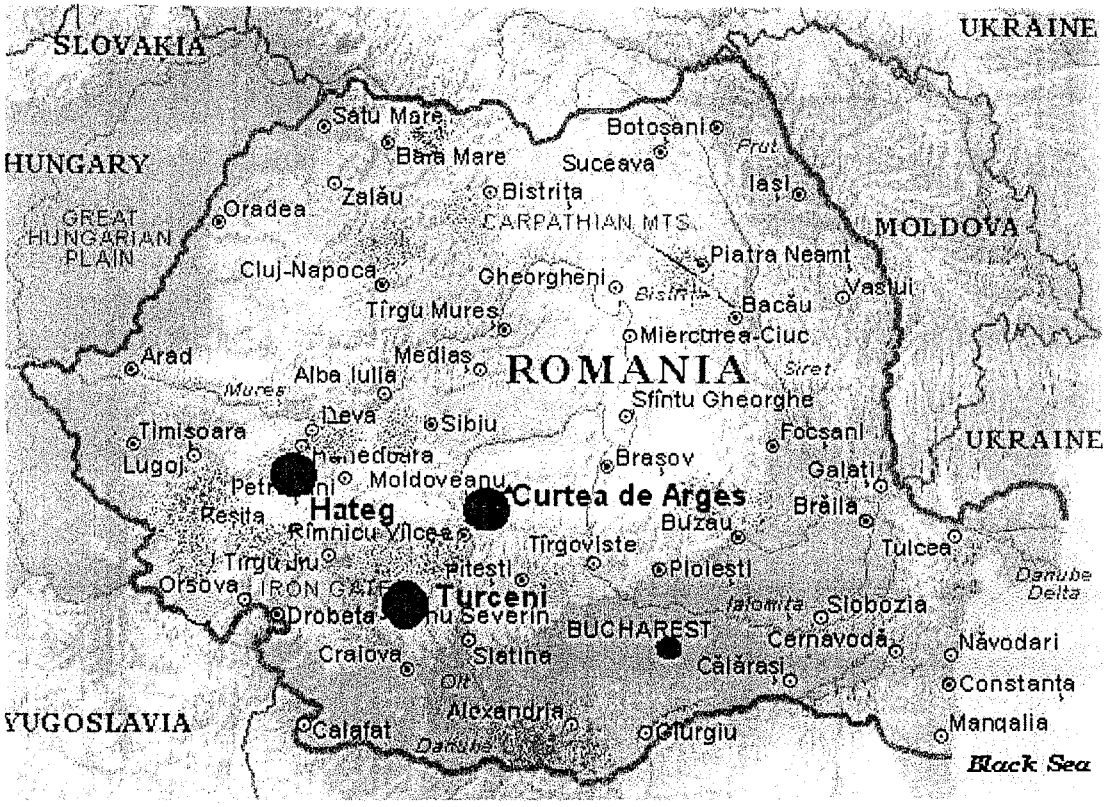

Fig.1 Unit Composition of Bundle I

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Joint Venture Asset Bundle 2 with Emphasis on a Major Hydroelectric Cascade

Unit Composition of Bundle II by Type, Capacity, and 2001 Production Level

No.	Type of Plant	Plant or Cascade Name	Installed Capacity		Available Capacity		Electricity Production in 2001	
			MW	%	MW	%	GWh	%
1	HPP	Ramnicu Valcea	1,625	57.93	1,625	69.44	2,768.000	50.07
		Total HPP	**1,625**	**57.93**	**1,625**	**69.44**	**2,768.000**	**50.07**
2	TPP	Isalnita	630	22.46	315	13.46	1,377.954	24.93
3	CHP	Craiova	300	10.70	300	12.82	1,028.144	18.60
4	CHP	Constanta Palas	250	8.91	100	4.27	353.696	6.40
		Total TPP&CHP	**1,180**	**42.07**	**715**	**30.56**	**2,759.794**	**49.93**
		Total for Bundle II	**2,805**	**100.00**	**2,340**	**100.00**	**5,527.795**	**100.00**

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Location Map for Bundle 2 Units

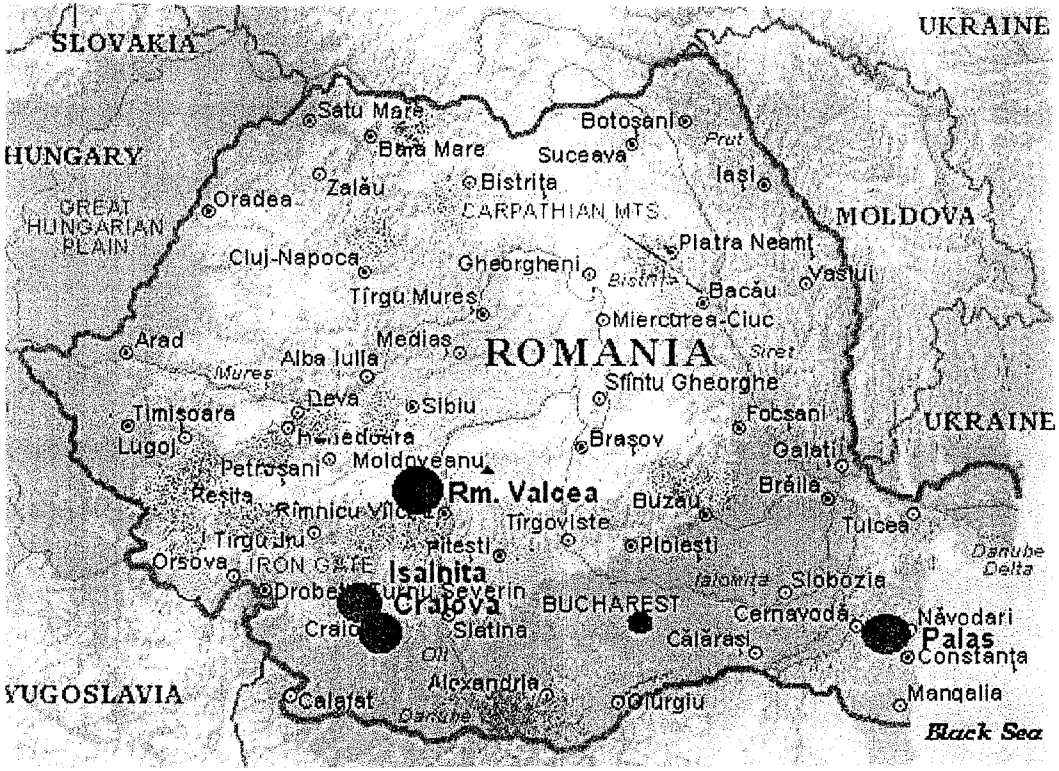

Fig. 2 Unit Composition of Bundle II

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Joint Venture Asset Bundle 3 with Emphasis on Oil and Gas-Fired Capacity

Unit Composition of Bundle III by Type, Capacity, and 2001 Production Level

No.	Type of Plant	Plant or Cascade Name	Installed Capacity		Available Capacity		Electricity Production in 2001	
			MW	%	MW	%	GWh	%
1	TPP	Iernut	800	29.42	800	34.50	2,493.624	42.61
2	CHP	Brazi	710	26.11	310	13.37	1,046.033	17.87
3	TPP	Borzesti Cd	420	15.45	420	18.11	469.836	8.03
4	CHP	Bucharesti Vest	250	9.19	250	10.78	794.619	13.58
		Total TPP&CHP	**2,180**	**80.18**	**1,780**	**76.76**	**4,804.112**	**82.09**
5	HPP	Cluj	539	19.82	539	23.24	1,048.000	17.91
		Total HPP	**539**	**19.82**	**539**	**23.24**	**1,048.000**	**17.91**
		Total for Bundle III	**2,719**	**100.00**	**2,319**	**100.00**	**5,852.112**	**100.00**

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Location Map for Bundle 3 Units

Fig. 3 Unit Composition of Bundle III

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Joint Venture Asset Bundle 4 with Emphasis on Balanced Mix of Thermal Capacity

Unit Composition of Bundle IV by Type, Capacity, and 2001 Production Level

No.	Type of Plant	Plant or Cascade Name	Installed Capacity		Available Capacity		Electricity Production in 2001	
			MW	%	MW	%	GWh	%
1	TPP	Rovinari	1,320	57.79	1,320	57.79	4,614.366	77.50
2	CHP	Buchuresti Progresul	200	8.76	200	8.76	506.351	8.51
		Total TPP&CHP	**1,520**	**66.55**	**1,520**	**66.55**	**5,120.717**	**86.10**
3	HPP	Sebes	346	15.15	346	15.15	280.000	4.71
4	HPP	Targu Jiu	193	8.45	193	8.45	238.184	4.00
5	HPP	Caransebes	148	6.48	148	6.48	178.328	3.00
6	HPP	Buzau	77	3.37	77	3.37	130.000	2.19
		Total HPP	**764**	**33.45**	**764**	**33.45**	**826.512**	**13.90**
		Total for Bundle III	**2,719**	**100.00**	**2,319**	**100.00**	**5,852.112**	**100.00**

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Location Map for Bundle 4 Units

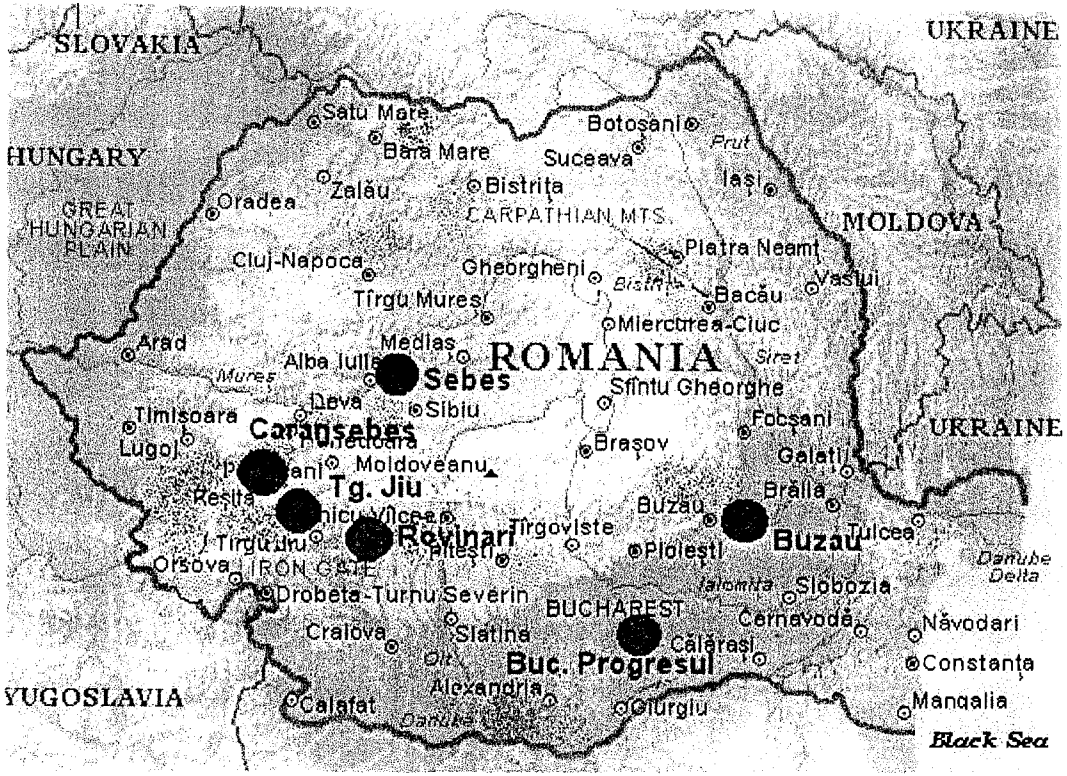

Fig. 4 Unit Composition of Bundle IV

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Comparative Summary of Indicative Asset Bundles by Installed and Available Capacity

Comparison of Indicative Asset Bundles by Installed and Available Capacity

Bundle No.	Installed Capacity in MW			Available Capacity in MW			Available Capacity Split in %	
	TPP & CHP	HPP	Total	TPP & CHP	HPP	Total	TPP & CHP	HPP
1	2,310	1,006	3,316	1,320	1,006	2,326	65.75	43.25
2	1,180	1,625	2,805	715	1,625	2,340	30.56	69.44
3	2,180	539	2,719	1,780	539	2,319	76.67	23.24
4	1,520	764	2,284	1,520	764	2,284	66.55	33.45
Total	**7,190**	**3,934**	**11,124**	**5,335**	**3,934**	**9,269**	**57.56**	**42.44**
Average	**1,798**	**984**	**2,781**	**1,334**	**984**	**2,318**	**57.56**	**42.44**

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Comparative Summary of Indicative Asset Bundles by Electricity Produced in 2001

Comparison of Indicative Asset Bundles by Electricity Produced in 2001

Bundle No.	2001 Electricity Production in GWh			2001 Electricity Production Split by Source in %	
	TPP & CHP	HPP	Total	TPP & CHP	HPP
1	4,744.051	1,065.000	5,809.051	81.67	18.33
2	2,759.794	2,768.000	5,527.794	49.93	50.07
3	4,804.112	1,048.000	5,852.112	82.09	17.91
4	5,120.717	826.512	5,947.229	86.10	13.90
Total	**17,428.674**	**5,707.512**	**23,136.186**	**75.33**	**24.67**
Average	**4,357.169**	**1,426.878**	**5,784.047**	**75.33**	**24.67**

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Underlying Assumptions for a Preliminary Financing Plan for the First Indicative Bundle

- It is assumed that the total amount of financing to be raised for this asset bundle through a project financing is 500 million U.S. Dollars, and that the new owner of these assets will be a Romanian joint venture company with a majority of the voting shares held by the private strategic investor, and the remainder held collectively by both Termoelectrica and Hidroelectrica
- It is understood that the Government of Romania will not be providing any performance undertakings or sovereign guarantees for this project financing
- A 70/30 debt-to-equity ratio appears to be an appropriate level of gearing for this proposed $500 million generation acquisition and planned modernization program for the first indicative asset bundle on a limited recourse or non-recourse project finance basis, especially given the high caliber of strategic investors that have already expressed interest in such a transaction

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Preliminary Financing Plan for the First Indicative Generation Asset Bundle

Potential Sources of Debt and Mezzanine Financing

Sources of Debt and Mezzanine Financing	Amount in Millions US$	Percent of Total Debt	Percent of Total Costs
Joint EBRD/International Finance Corporation "A" Loan	60.0	17.1	12.0
Jointly Underwritten EBRD/International Finance Corporation "B" Loan	140.0	40.0	28.0
Export Credit Agencies	105.0	30.0	21.0
Black Sea Trade & Development Bank	20.0	5.7	4.0
International Finance Corporation "C" Loan	25.0	7.2	5.0
Total Debt	**350.0**	**100.0**	**70.0**

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Preliminary Financing Plan for the First Indicative Generation Asset Bundle (Continued)

Likely Sources of Equity

Sources of Equity and Offsetting Credits	Amount in Millions US$	Percent of Total Equity	Percent of Total Costs
Strategic Investor(s)	75.0	50.0	15.0
Multilateral Investors such as EBRD and/or the International Finance Corporation	20.0	13.3	4.0
Institutional and Local Investors	30.0	20.0	6.0
Sales of Carbon Emission Reduction Credits to both the Swiss and Dutch	25.0	16.7	5.0
Total Equity	**150.0**	**100.0**	**30.0**

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Likely Backstop Guarantee Requirements

- It is assumed that the various potential lenders highlighted earlier will require many or all of the following backstop guarantees to secure their loans:
  - Mortgages on all joint venture company facilities, land, and other related assets
  - Assignment of all outstanding shares of the joint venture company until such time as all senior debt has been retired
  - Assignment of all power purchase agreements transferred to the joint venture company by ANRE from its pool of regulated contracts
  - Establishment of a prepaid reserve account sufficient to cover at least six months of debt service and fixed O&M
  - Creation of a disbursement and payment mechanism that is free from governmental interference
  - Expropriation insurance coverage and MIGA or equivalent breach of contract insurance

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